

*serrulata*). The surface is underlaid by "Coquina" throughout the whole length of the river, and this for some miles on the western shore forms bluffs twenty or thirty feet in height. The lower part of the formation is thoroughly cemented and hard. No outcroppings show a geological group older than the Post Pliocene or fossils different from living forms. The western shore stands in pleasing contrast to the eastern in its high coquina banks, back of which are extensive pine barrens. These high bluffs are replaced further south by sand ridges and hills of considerable elevation—sometimes at quite a distance from the river. A number of creeks and three rivers coming in from the west materially vary the surface geology of the country where they have broken through the natural deposits. The vegetation on this side is of the same character as that of the east shore with a few exceptions. But that tropical tree, the Mangrove, will not be found at Sand Point, neither for many miles below on the west shore, on account of occasional frosts. It grows, however, immediately opposite and southward, being protected from chilly blasts by the broad expanse of the lagoon. Species of the *Citrus* family, the banana, pine-apple, *Papaya*, *Guava*, etc., seem to attain more perfection here than elsewhere in Florida. I have never seen the black Mangrove (*Avicennia tomentosa*) grow to a greater size and height than along Jupiter Narrows. Such in brief are a few prominent features of the country as they appeared to us in our journey by sail boat and from examinations made at thirteen regular camps and a number of landings. Probably, as my friend Mr. Curtiss says, the character of vegetation and species is not so different from the St. Johns country. Familiar northern farms will frequently greet the eye, but not abundantly. The arborescent species are the most interesting as well as the most valuable, and afford a number of rare woods, such as the Crab, Boxwood, Buttonwood, Satinwood, Ironwood (several species), Gum, etc. All of these as well as the Mangrove, are capable of a high polish, and sooner or later will be utilized. My collections during the trip numbered one hundred and six species found in flower, besides some not identified. In addition I secured a number of rare wood specimens with their foliage, one of the most prized being a section of the *Quassia* tree (*Simaruba glauca*). Also alive, two *Epidendrums* and an *Orchid* found at Jupiter which is exactly the same as one from Mexico, but which no one has ever seen in Florida before. Its name is yet undetermined. Live fern roots, among them the giant *Acrostichum aureum*, have been successfully transplanted to my greenhouse in the north. I desire here to express my satisfaction in comparing notes with A. H. Curtiss, Esq., at his beautiful home, Talleyrand Place, on the St. Johns, near Jacksonville, where, with his mother, he is doing good work for botanical science, one of the results being the addition of a dozen or so of new species to the Southern Flora. Mrs. Curtiss has also enriched Algology by rare finds and new species.—W. W. CALKINS.

RECENT PUBLICATIONS.—*Revision of the Genus Pinus, and descrip-*

tion of *Pinus Elliottii*, by Dr. George Engelmann.—This is a folio pamphlet of about 30 pages, and contains three fine plates drawn on stone by Mr. Paulus Roetter. The author has taken hold of a perplexing genus, and with his usual patience and success, has worked it through, presenting us in this Revision the results of years of investigation. A full description is given of the structure of stem, leaves, and flowers of the genus, and then follows a new arrangement of the species with notes upon such as the author himself has examined. The position of the resin ducts in the leaves has been taken as one of the most important characters in the sub-division of the genus. This character together with that furnished by the presence and position of the hypoderm or "strengthening" cells makes the leaves a most important factor in the determination of the species, second only to the cone scales. The form of the fruit scale, together with other less important characters, constitute two natural sections of the genus, mainly STROBUS and PINASTER. The subsections are then distinguished by the position of the resin ducts in the leaf. Then comes the character of subterminal or lateral position of the female ament and the cone, making the number of leaves in a sheath quite a secondary character. This system preserves both natural and geographical alliances. The genus *Pinus* contains between 60 and 70 species, of which the author enumerates 45 as having been examined by himself. Two new species are described, *P. Wrightii* and *P. Elliottii*, the former being a Cuban pine, the latter growing along our southeastern coast from South Carolina to Florida, and thence westward along the gulf border, and bearing the reputation of being by far the handsomest of all the southern pines.

*Ferns of North America*, Parts 24-27.—With a quadruple number this magnificent work has concluded. While glad to have the completed work, we are sorry that this is the end, for we will miss the pleasurable excitement that each number brought with it and the eager haste with which the broad pages were cut, the life-like figures studied, and the clear text glanced over. This concluding number contains illustrations of *Aspidium patens*, Swz.; *Woodsia Oregana*, Eaton; *W. obtusa*, Torr.; *W. scopulina*, Eaton; *Onoclea sensibilis*, L.; *O. Struthiopteris*, Hoffman, (*Struthiopteris Germanica*, Willd.); *Pellaea aspera*, Baker; *Notholaena Parryi*, Eaton; *Cheilanthes Lindheimeri*, Hook; *Phegopteris polypodioides*, Lee; *Aspidium juglandifolium*, Kunze; *Asplenium Filix-femina*, Bernh.; *Adiantum tenerum*, Swz.; *Pteris longifolia*, L.; *Cheilanthes Fendleri*, Hook; *C. myriophylla*, Desv.; *C. gracillima*, Eaton; *Asplenium dentatum*, L.; *Aspidium mohrioides*, Bory; *Ceratopteris thalictroides*, Brong.; *Asplenium firmum*, Kunze; *Ophioglossum vulgatum*, L.; *O. crotalophoroides*, Walt. (*O. bulbosum*, Mx.); *O. nudicaule*, L. f.; *O. palmatum*, Plumier. The last plate is the eightieth.

*Notes on the Bartram Oak*, by Isaac C. Martindale.—This is a pamphlet of 24 pages giving the whole history of this much doubted species, collecting from various botanical works all the facts concerning it, many of which are very interesting. The object is to give

sufficient testimony for its re-establishment to specific rank under the name of *Q. heterophylla*, Mx.

*American Agriculturist*.—We can imagine no better journal than this for the class to which it addresses itself. With a competent botanist in charge of it, all readers can rely upon its scientific accuracy and freedom from scientific rubbish. The May number contains an article which ventilates pretty thoroughly a late transaction of the Department of Agriculture. If any man in the country can speak with authority upon grasses, that man is Dr. Thurber. The only wonder is that the so-called seed of "Bermuda Grass" was not submitted to Dr. Vasey, the Botanist of the Department, who could have decided the matter with equal authority.

*Bulletin of the Torrey Botanical Club*, March.—The table of contents is as follows: Proceedings of the Torrey Club; Notes on the Flora of Plainfield, N. J.; Notes on a Botanical Trip through N. W. New Jersey; Additions to U. S. Phalloidei; Correlation between the Odor of the Phalloids and their Relative Frequency; The North-Jersey Botanical Club; Botanical News; *Juncus setaceus*.

*Kritisches Verzeichniss aller bis jetzt beschriebenen Juncaceen nebst Diagnosen neuer Arten* von Franz Buchenau.—Prof. Buchenau of Bremen, has published this work of 112 pages after having collected material for some 20 years. First there is given a long catalogue of species and authors, occupying 60 pages. The next 45 pages are taken up with remarks on some of the species and diagnoses of new species. The last few pages are devoted to an attempt at a natural arrangement of hitherto described *Juncaceæ*. The work will be furnished by Prof. Buchenau, postpaid to any address, for one dollar.

*A Catalogue of the Forest Trees of North America*, by C. S. Sargent.—This is a catalogue to be published in connection with the Report on the Forest Wealth of the United States. It is sent out in this preliminary form with every other page left blank for notes, for the purpose of collecting further information before the final publication. The list contains 342 species, and information is asked upon such points as the following: extreme geographical range of any species, region and elevation where any species is principally multiplied and reaches its greatest perfection, the geological formation most favorable, dimensions of remarkably developed specimens of any species, common or local name, purposes for which the wood of any species is employed, products of any species other than wood.

ERRATUM.—In the first line on page 27, March, 1880, for "two inches" read two lines.